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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,417	03/30/2004	Sumit Agarwal	16113-001001	1265
26192 7590 09/13/2007 FISH & RICHARDSON P.C.		ЕХАМ	INER	
PO BOX 1022			PHAM, M	ICHAEL
MINNEAPOLIS, MN 55440-1022			ART UNIT	PAPER NUMBER
			2167	
			MAIL DATE	DELIVERY MODE
			09/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Annlingtion No.	Anniin na(n)
		Application No. 10/812,417	Applicant(s) AGARWAL ET AL.
	Interview Summary	Examiner	Art Unit
		Michael D. Pham $\mu\mathcal{R}$	2167
All participants	(applicant, applicant's representative, PTO	personnel):	
(1) Michael D. F	<u>Pham</u> .	(3) <i>Leila Abdi (reg#: 52,39</i>	9 <u>)</u> .
(2) Cam Y Truo	ng.	(4)	
Date of Inter	view: <u>06 September 2007</u> .		
Type: a)⊠ c)□	Telephonic b) Video Conference Personal [copy given to: 1) applicant	2)⊠ applicant's representative	e]
	or demonstration conducted: d) Yes of description:	e)⊠ No.	
Claim(s) discu	ssed: <u>Claim 1</u> .		•
Identification o	f prior art discussed: <u>Hillis</u> .		
Agreement wit	h respect to the claims f) was reached.	g)⊠ was not reached. h)☐ N	N/A.
	nterview including description of the generally other comments: <u>See Continuation Sheet</u>		if an agreement was
allowable, if a	ption, if necessary, and a copy of the amend vailable, must be attached. Also, where no d vailable, a summary thereof must be attached	copy of the amendments that v	reed would render the claims would render the claims
INTERVIEW. (GIVEN A NON INTERVIEW D	WRITTEN REPLY TO THE LAST OFFICE ASE MPEP Section 713.04). If a reply to the EXTENDABLE PERIOD OF THE LONGER ATE, OR THE MAILING DATE OF THIS INTERNATION OF THE SUBSTANCE OF THE INTERN REVERSE SIDE OF ON attached sheet.	e last Office action has already OF ONE MONTH OR THIRT FERVIEW SUMMARY FORM,	y been filed, APPLICANT IS Y DAYS FROM THIS WHICHEVER IS LATER, TO
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Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

Examiner's signature, if required

Application No. 10/812,417

*Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments:

Applicant's representative asserted a new issue stating that the provisional application does not disclose the material in US2005/0131918 by Hillis, cited in the last office action. However, the examiner's disagreed with applicant's representative that the provisional application did not support the Hillis reference, and further cited portions of the provisional that supported the prior amended limitations, "selecting a plurality of evaluators to rate the document" as supported in the provisional page 5 line 10 as user profiles specifies (selecting) which repuation systems, page 5 lines 6-9, reputation systems (evaluator) return set of statistics and rating (rate) for content (document). Further stating that "passing the document to the plurality of evaluators for rating" as supported in the provisional page 5 line 6, each reputation system (evaluators) returns a set of statistics for a given (passing) piece of content (document) within the database. Applicant's then raised an issue of prior limitation "determining whether to deliver the document in response to the signal based on the criteria and the rating information from the one or more evaluators". However, the examiner responded by stating that this was already addressed in the first action of which applicant's had no arguments for, and further was maintained in the final office action. It was concluded that the final assertion made by Applicant's representative would not be addressed at this time due to time constraints and specific detail not addressed in the agenda. Applicant's representative was advised to create specific arguments in lieu of a broad assertion with no claim specifics in the agenda provided 9/5/07. At that point, the interview was adjourned.

Attorney's Docket No.: 16113-641001 Client's Ref. No.: GP-254-00-US

OFFICIAL COMMUNICATION FACSIMILE:

OFFICIAL FAX NO: (571) 273-3924

Number of pages including this page 16

Applicant : Agarwal, et al.

Art Unit : 2167

Serial No.: 10/812,417

Examiner: Michael Pham

Filed

: March 30, 2004

Title

: System and Method For Rating Electronic Documents

Dear Examiner Pham:

We have tentatively scheduled a telephonic interview regarding United States Application Serial No. 10/812,417 on September 6, 2007. Attending this interview for the Assignee will be Leila Abdi, representative for the assignee. The following is a list of agenda items that we would like to discuss during the interview:

The 35 U.S.C. 102(e) reference Hillis has a 102(e) date of December 12, 2003 (the date 1) of the provisional). The provisional application (60/529,245) (attached) does not disclose the material disclosed in US 2005/0131918 (Hillis), which is cited in the latest Office Action.

Respectfully submitted,

Date: September 5, 2007

eila R. Abdi Reg. No. 52,399

Fish & Richardson P.C. 1180 Peachtree Street, N.E., 21st Floor Atlanta, GA 30309 Telephone: (404) 892-5005

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NOTE: This facsimile is intended for the addressee only and may contain privileged or confidential information. If you have received this facsimile in error, please immediately call us collect at (404) 892-5005 to arrange for its return. Thank you.

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I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner for Patents, Mall Stop Provisional Patent Application, P.O. Box 1450, Alexandria, VA 22313-1450

Rhonda Dunn

Attorney Docket No. APPL0007CI2PR



IN THE U.S. PATENT AND TRADEMARK OFFICE **Provisional Application Cover Sheet**

Assistant Commissioner for Patents Mail Stop Provisional Patent Application P.O. Box 1450 Alexandria, VA 22313-1450

December 12, 2003

Sir:

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53(b)(2).

INVENTOR(s)/APPLICANT(s)

Last Name	First Name	Middle Initial	Residence (City and Either State or Foreign Country
Hillis	W.	Daniel	Glendale, California 91201
Cook	Robert		San Francisco, California 94110
Bollacker	Kurt		San Francisco, California 94110

Title of the invention

Reputation System

Correspondence Address

Michael A. Glenn 3475 Edison Way, Suite L Customer No. 22862

Menio Park, CA 94025

Telephone No. (650) 474-8400

Enclosed Application Parts (check all that apply)

(X) Specification and Drawing(s) Number of Pages

() Small Entity Statement - Small Business

Filing Fee and Method of Payment

\$80.00 for Small Entity

\$160.00 for Large Entity

The Commissioner is authorized to charge the filling fee of \$80.00 and any additional fees or credit any overpayment to Deposit Account No. 07-1445 (Order No. APPL0007Cl2PH). A copy is enclosed for this purpose.

Respectfully Submitted,

Michael A. Glenn

Reg. No. 30,176

Customer No. 22862

April 23, 2003

IDF: Trust Profile

Personalized Trust Profile Based on Multiple Reputation Systems

Invention Disclosure Form April 23, 2003

Inventors

Indicate the names of all persons who made a contribution to the conception and/or reduction to practice of the invention.

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Inventor	Kurt Bollacker	Position	Software Architect
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	United States		
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Citizenship	United States	Email	kbollacker@appmindsf.co

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Applied Minds, Inc.	April 23, 2003.	IDF: Trust Profile
	Conception of the Invention	
Indicate the information surrou	anding the conception of the invention.	
Date of conception: April 6	5, 2003	
Place of conception: San F. Location of first written de Kurt Bollacker, Robert Cook, a	escription: In an email sent by Dann	y Hillis on April 6, 2003, to
	Project Information	
to practice. If applicable, prov	ect name under which the invention worlde the date of the first showing or dendicate any projects to which the invention	monstration of the invention
Not applicable.		
	Product Information	
	duct name under which the invention in the showing and manufacturing releas	
Not applicable.		
	Reduction to Practice	
	ent to which the invention has been recention has been simulated, built, or tes	
Not applicable.		
CONFIDENTIAL	2	DO NOT DISCLOSE

Applied Minds, Inc.	April 23, 2003	IDF: Trust Profile
	Publication	
If applicable, indicate when an	d where the invention has been descr	ibed in a publication.
Not applicable.		
	Government Contract	
If applicable, indicate the governduce to practice.	ernment contract under which the in	vention was conceived and/or
Not applicable.		
	References	
	patents, patent applications, or any naterial and/or prior art for your inv	<u> </u>
_	on System Based on Allocated Autho Hillis on April 6, 2003, to Kurt Bolla	-

Duttweiler. Signed hardcopies of these emails also exist.

April 23, 2003

IDF: Trust Profile

Problem Statement and Prior Art

State the problem that was to be solved. Describe how others had solved it before you. Describe the problems and disadvantages associated with prior solutions.

Many locations within the World Wide Web allow users to submit reviews and comments for existing web based material. For example, Amazon allows users to submit reviews of books, including a zero to five star rating, and Slashdot allows users to comment on recently posted articles.

However, such sites are typically limited in their ability to indicate the trustworthiness of these reviews and comments. Amazon allows other users to rate submitted reviews, by indicating that they "found a review helpful". Slashdot allows users to annotate submitted comments with an overall score and attributes such as "funny" or "informative". The large number of submitted comments can then be filtered based on these annotations.

While offering some degree of utility, each of these approaches relies essentially on a "mass consensus" in which each contributor of reviews and ratings possesses equal authority. Moreover, the manner in which the reviews and scores are utilized cannot be extensively customized by a particular user.

Goals of the Invention

State your goals in creating the invention, in particular the improvements over the prior art that were desired.

The goal of the invention is a personalized trust profile combining multiple reputation systems to yield a reliable measure of the trustworthiness of a particular piece of content located within a large database of annotated content. In particular, the invention should allow users to combine the reputation systems in a flexible manner that varies depending on the type of content under consideration.

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4

April 23, 2003

IDF: Trust Profile

Description of the Invention

Describe the structure, function and/or method of the invention. Stress the fundamental principle of the new idea from an engineering standpoint. Use drawings, flow charts, and block diagrams if needed.

The invention provides a method of evaluating content presented to a user from within an annotated databased based on evaluations returned from one or more reputation systems.

Each reputation system returns a set of statistics for a given piece of content within the database. (See the related disclosure in the References section for more information on reputation systems.) Generally, the statistics indicate the reliability and trustworthiness of the content. For example, the reputation system may return a rating between -1 and 1.

A user profile specifies which reputation systems the user considers reliable, to which degree, and for which purposes. For a given purpose, for example entertainment reviews, the reputations systems considered reliable are combined to determine an overall evaluation of the trustworthiness of the content. For example, several reputation systems may be combined using a weighted averaging scheme, the weights reflecting the relative degree to which the user trusts each reputation system.

The reputations systems utilized and the relative weightings may be varied depending on the data type of the content, as indicated by the annotations within the database. For example, a user may specify one trust profile for content of a scientific nature, and another trust profile for content related to entertainment. Further, a number of trust profiles themselves may be further combined to yield profiles of profiles. For example, a "literature" trust profile and a "medicine" trust profile may be combined to yield a profile suitable for evaluating medical literature.

The trust profile may be used to present the resulting evaluation of trustworthiness to the user as the content is viewed. Alternatively, especially during searches for content, a threshold may be set and only content with an evaluation exceeding the designated threshold returned.

Trust networks may also be constructed based on reputations systems that evaluate content based on criteria other than reliability and trustworthiness, such as usefulness, thoroughness, and originality.

Applied Minds, Inc.	April 23, 2003	IDF: Trust Profile
	Inventor Signatures	•
This Invention Disclosure Form Minds, Inc.	n is submitted pursuant to your empl	oyment agreement with Applied
		Date:
Witnessed:		Date:
Signature:		Date:
Witnessed:	· · · · · · · · · · · · · · · · · · ·	Date:
Signature:	· · · · · · · · · · · · · · · · · · ·	Date:
Witnessed:		Date:
	Read and Understood	
This Invention Disclosure Form to be used for such purposes, i	n may be used in legal proceedings t is important that it be read and u	regarding this invention. For it nderstood by two individuals.
Name:	Name:	
	Signature:	
	Date:	
	withessed:	

April 23, 2003

IDF: Reputation System

Reputation System Based on Allocated Authority

Invention Disclosure Form April 23, 2003

Inventors

Indicate the names of all persons who made a contribution to the conception and/or reduction to practice of the invention.

Inventor	W. Daniel Hillis	Position	Chief Technological Officer
Home Address	4750 Encino Ave.	Work Address	1209 Grand Central Ave.
	Encino, CA 91316		Glendale, CA 91201
	United States	·	
Home Phone	(818) 761-9781	Work Phone	(818) 545-1402
Citizenship	United States	Email	danny@appliedminds.net
Inventor	Robert Cook	Position	Software Architect
Home Address	21 Samoset Street	Work Address	357 Tehama St, 4th Fl.
	San Francisco, CA 94110		San Francisco, CA 94103
	United States	[ŕ
Home Phone	(415) 821-5891	Work Phone	(415) 546-2000
Citizenship	United States	Email	robert@apliedminds.net
Inventor	Kurt Bollacker	Position	Software Architect
Home Address	3025 21st St, Apt 7	Work Address	357 Tehama St, 4th Fl.
	San Francisco, CA 94110		San Francisco, CA 94103
	United States		Í
Home Phone	(415) 647-6775	Work Phone	(415) 546-2002
Citizenship	United States	Émail	kbollacker@appmindsf.com

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Applied Minds, Inc.	. April 23, 2003	IDF: Reputation System
	Conception of the Invention	on
Indicate the information surro	unding the conception of the inver	ntion.
Date of conception: April	6, 2003 _.	
Place of conception: San F Location of first written de Kurt Bollacker, Robert Cook,	escription: In an email sent by	Danny Hillis on April 6, 2003, to
	Project Information	
to practice. If applicable, prov	ride the date of the first showing	on was conceived and/or reduced or demonstration of the invention e invention's relevance should be
Not applicable.		
	Product Information	
	duct name under which the inven	ation is or will be offered for sale.
Not applicable.		
	Reduction to Practice	
If applicable, indicate the exterior indicate to what extent the invalent reduction to practice.	ant to which the invention has be ention has been simulated, built,	een reduced to practice. That is, or tested. Provide the date of any
Not applicable.		
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Applied Minds, Inc.	April 23, 2003	IDF: Reputation System
	Publication	
If applicable, indicate when and	d where the invention has been de	escribed in a publication.
Not applicable.		
	Government Contract	
If applicable, indicate the governduce to practice.	rnment contract under which the	s invention was conceived and/or
Not applicable.		
	References	
List any printed publications, pof, which provide background n	patents, patent applications, or a naterial and/or prior art for your	ny other materials you are aware invention.
See the related IDF "Personaliz	ed Trust Profile Based on Weight	ted Reputation Systems".
	Hillis on April 6, 2003, to Kurt B	ollacker, Robert Cook, and Mark

April 23, 2003

IDF: Reputation System

Problem Statement and Prior Art

State the problem that was to be solved. Describe how others had solved it before you. Describe the problems and disadvantages associated with prior solutions.

Many locations within the World Wide Web allow users to submit reviews and comments for existing web based material. For example, Amazon allows users to submit reviews of books, including a zero to five star rating, and Slashdot allows users to comment on recently posted articles.

However, such sites are typically limited in their ability to indicate the trustworthiness of these reviews and comments. Amazon allows other users to rate submitted reviews, by indicating that they "found a review helpful". Slashdot allows users to annotate submitted comments with an overall score and attributes such as "funny" or "informative". The large number of submitted comments can then be filtered based on these annotations.

While offering some degree of utility, each of these approaches relies essentially on a "mass consensus" in which each contributor of reviews and ratings possesses equal authority. Moreover, the manner in which the reviews and scores are utilized cannot be extensively customized by a particular user.

Goals of the Invention

State your goals in creating the invention, in particular the improvements over the prior art that were desired.

The goal of the invention is a reputation system providing users with a reliable measure of the trustworthiness of a particular piece of content located within a large database of annotated content. In particular, the system should allow contributors of ratings to be assigned varying degrees of authority.

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April 23, 2003

IDF: Reputation System

Description of the Invention

Describe the structure, function and/or method of the invention. Stress the fundamental principle of the new idea from an engineering standpoint. Use drawings, flow charts, and block diagrams if needed.

The core components of the proposed reputation system are sources of authority, contributing authorities, and pieces of content within the annotated database. A particular reputation system is based on one or more sources of authority. Each source of authority designates a number of contributing authorities, allocating to each a specific amount of authority. In turn, each contributing authority utilizes its allotment of authority to designate other contributing authorities. Finally, contributing authorities rate individual pieces of content within the database. In this manner, the degree of "trust" the reputation system places in the sources of authority is propagated through a distributed network of contributing authorities, and ultimately the database content.

The total amount of authority allocated by a contributing authority must not exceed the total amount of authority it was itself allocated, multiplied by an attenuation factor. The amount of authority allocated is thus attenuated with each degree or removal from the source of authority. An attenuation of $\frac{1}{2}$ is particularly effective, in that it ensures that conspiring contributing authorities cannot allocate authority to one another in an attempt to elevate their total authorities.

The total amount of authority within the reputation system is therefore expressly determined by the sources of authority. Accordingly, it is important that the sources of authority act prudently. However, because a reputation system may add or drop sources of authority, and because a reputation system itself is voluntarily utilized or ignored by the community of database users, there is strong incentive for the sources of authority to behave judiciously.

The authority allotted to one contributing authority by another contributing authority may be negative. That is, the contributing authority may indicate a level of "distrust" for the designated contributing authority. For the designating contributing authority, this expression of negative sentiment counts in a positive manner towards the allotment of authority it may allocate. However, it is considered in a negative manner when calculating the amount of authority the designated contributing authority may allocate.

Each contributing authority also rates an unlimited number of pieces of content within the database. The reliability and trustworthiness of each piece of content is rated numerically on a scale from 0 to 1. Alternatively, the contributing authority may rate the pieces of content with an arbitrary scale that is the normalized by the largest rating. A numerical scale ranging from -1 to 1 may be used if it is desirable that a contributing authority be able to rate a piece of content as notably "untrustworthy".

The network of authority is used to determine a rating for a particular piece of content as judged by the reputation system. This is accomplished by considering the one or authorities rating the content. These ratings are combined using a weighted average. For example, for content rated r_i by authority i among N rating authorities, authority i having a total delegated authority of w_i ,

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5

April 23, 2003

MF: Reputation System

the rating is

$$R = \sum_{1 < i \leq N} \frac{w_i r_i}{W},$$

where

$$W = \sum_{1 < i \le N} w_i.$$

This method of computing the trustworthiness of content offers several notable advantages. First, because the rating methodology is "outwardly propagating" from the sources of authority, the rating for a piece of content can be computed and stored "local" to the content. That is, it is not necessary to consult a central server (for example associated with the source of authority) to determine the rating. Each piece of content must merely consider the ratings it has received and the authority associated with that rating to determine its own overall rating. Concerns regarding falsification of ratings can be addresses using encrypted authority tokens.

Second, updating the reputation system is a straightforward process. Each contributing authority delegates authority as a fraction of its allotted authority. Thus, without intervention from the contributing authority, authority newly injected by a source of authority is automatically propagated outward through he reputation system. Addition of sources of authority and redistribution of allotted authority by contributing authorities is updated in a similar manner.

In an alternative approach, a rating for a piece of content is computed with respect to each source of authority in the reputation system as described above. An overall rating for the content is then calculated by combining the individual ratings by adding, averaging, or weighted averaging. For example, the reputation system may assign a relative importance to each source of authority, and the individual ratings are combined in a weighted averaging scheme with the relative importances serving as weights.

It should be noted that a different reputation system may be constructed for each data type within the database. The data type of a particular piece of content is indicated by the type of link to the content, and a particular reputation system is invoked accordingly. For example, one reputation system may be constructed for medical journals, and another for movie reviews. Also, reputation systems may be constructed in which the content is rated based on criteria other than reliability and trustworthiness, such as usefulness, thoroughness, and originality.

Variations on the described system are possible. For example, it is possible for a source of authority to directly rate a piece of content. In this case, the total delegated authority used in the weighted average may either be considered equal to the sum of all authority delegated by the source of authority, or, alternatively, a smaller number chosen by the authority reflecting its confidence in the assigned rating.

Also, a source of authority may designate another source of authority as a designated authority. In this case, the designated source of authority functions as a contributing authority with respect to the designating source of authority.

Applied Minds, Inc.	April 23, 2003	IDF: Reputation System
		v.
	Inventor Signatures	
This Invention Disclosure Form Minds, Inc.	is submitted pursuant to your em	ployment agreement with Applied
Signature:		Date:
Witnessed:		Date:
Signature:		Date:
Witnessed:		Date:
Signature:	,	Date:
Witnessed:		Date:
This Invention Disclosure Form	Read and Understood	s regarding this invention. For it
to be used for such purposes, it	is important that it be read and	understood by two individuals.
Name:	Name:	
	Signature:	
	Date:	
	Witnessed:	
Date:	Date:	•

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PATENT APPLICATION SERIAL NO.

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE FEE RECORD SHEET

12/17/2003 FRETEXE 00000118 071445 60529245 01 FC:2005 80.00 BA

> PTO-1556 (5/87)